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PATENTED MAR. 8, 1904.

B. W. ALLEN.

JUNCTION BOX FOR ELECTRIC WIRES IN BUILDINGS.

APPLICATION FILED DEC. 12, 1903.

NO MODEL.

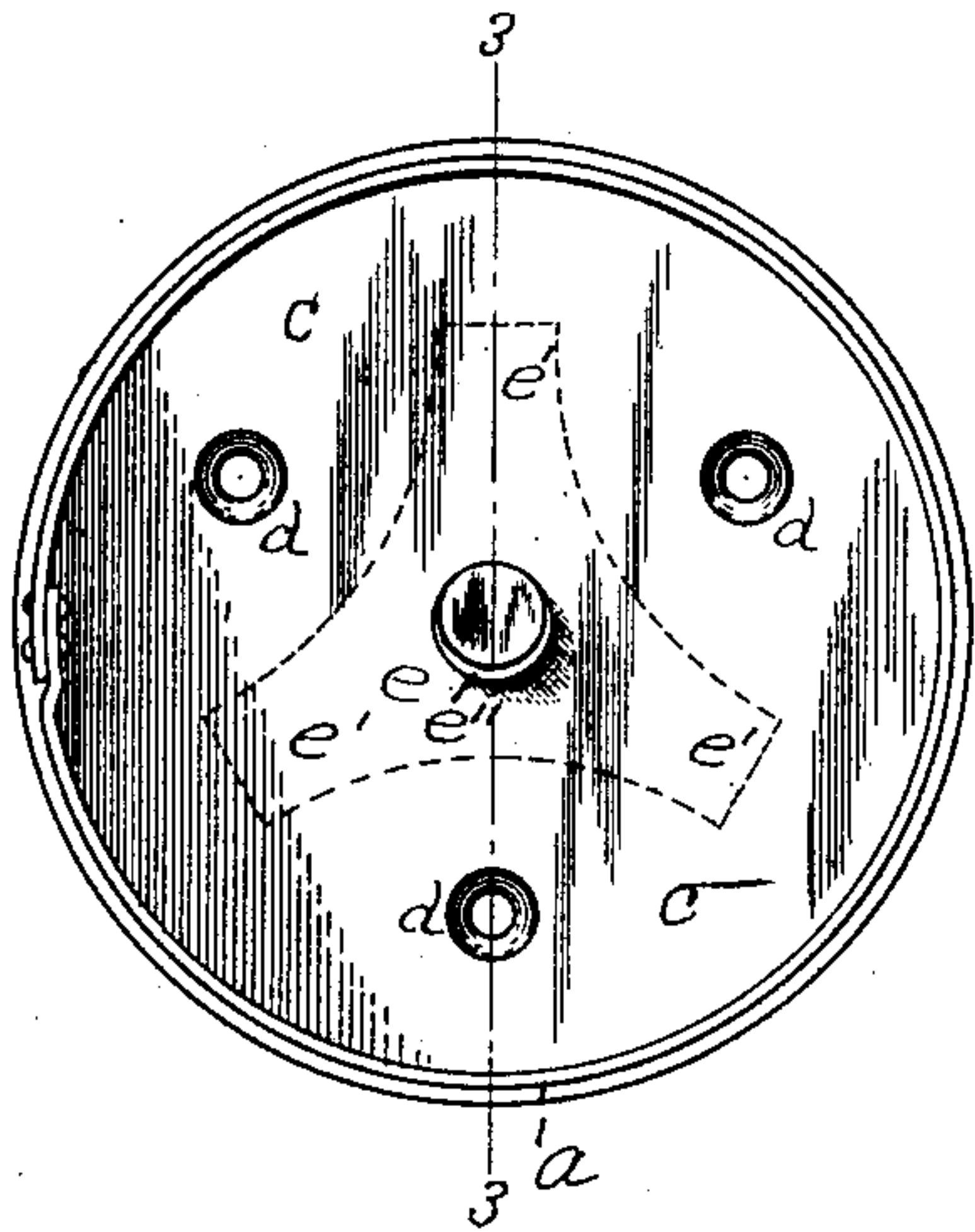


Fig. 1.

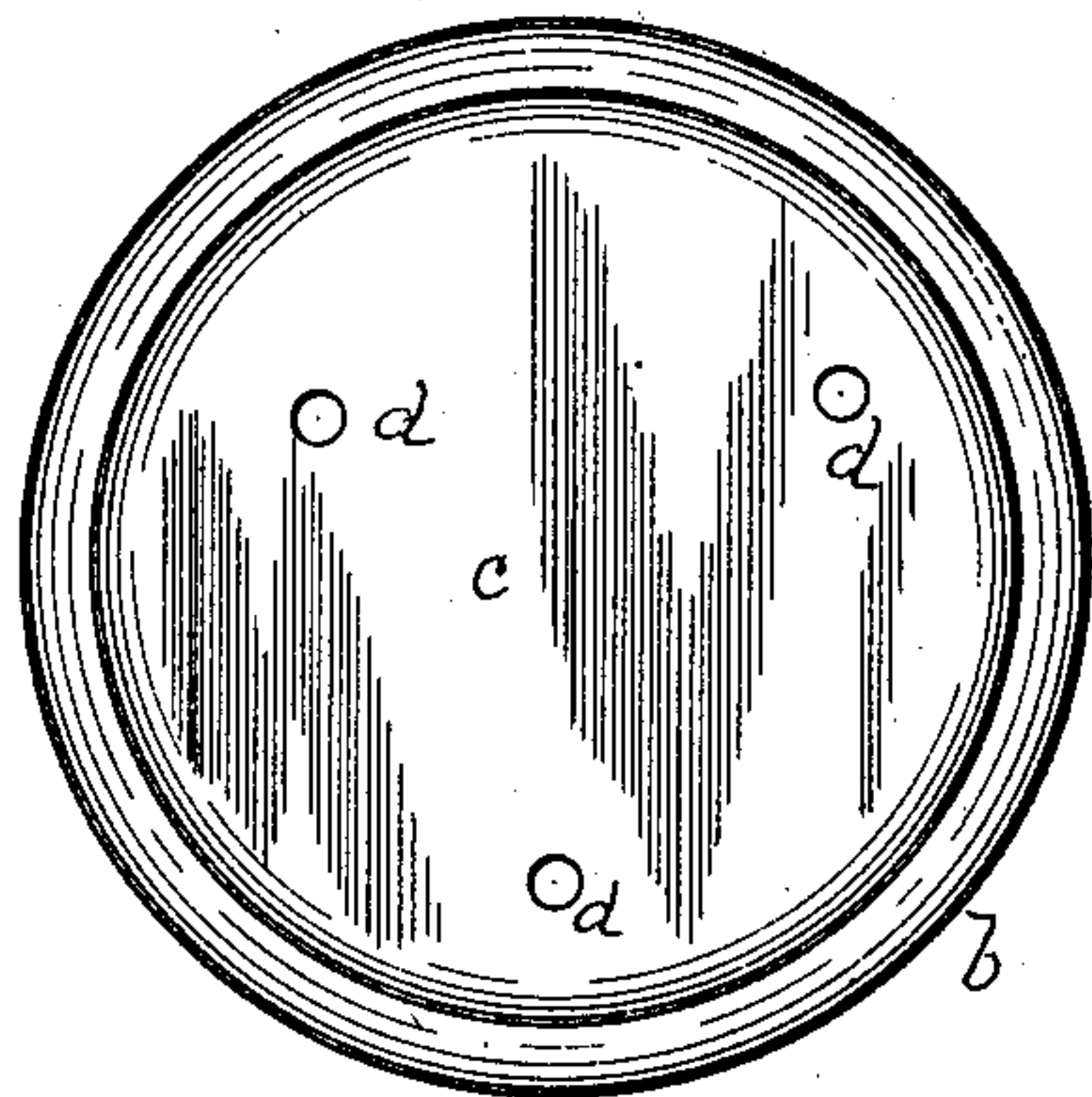


Fig. 2.

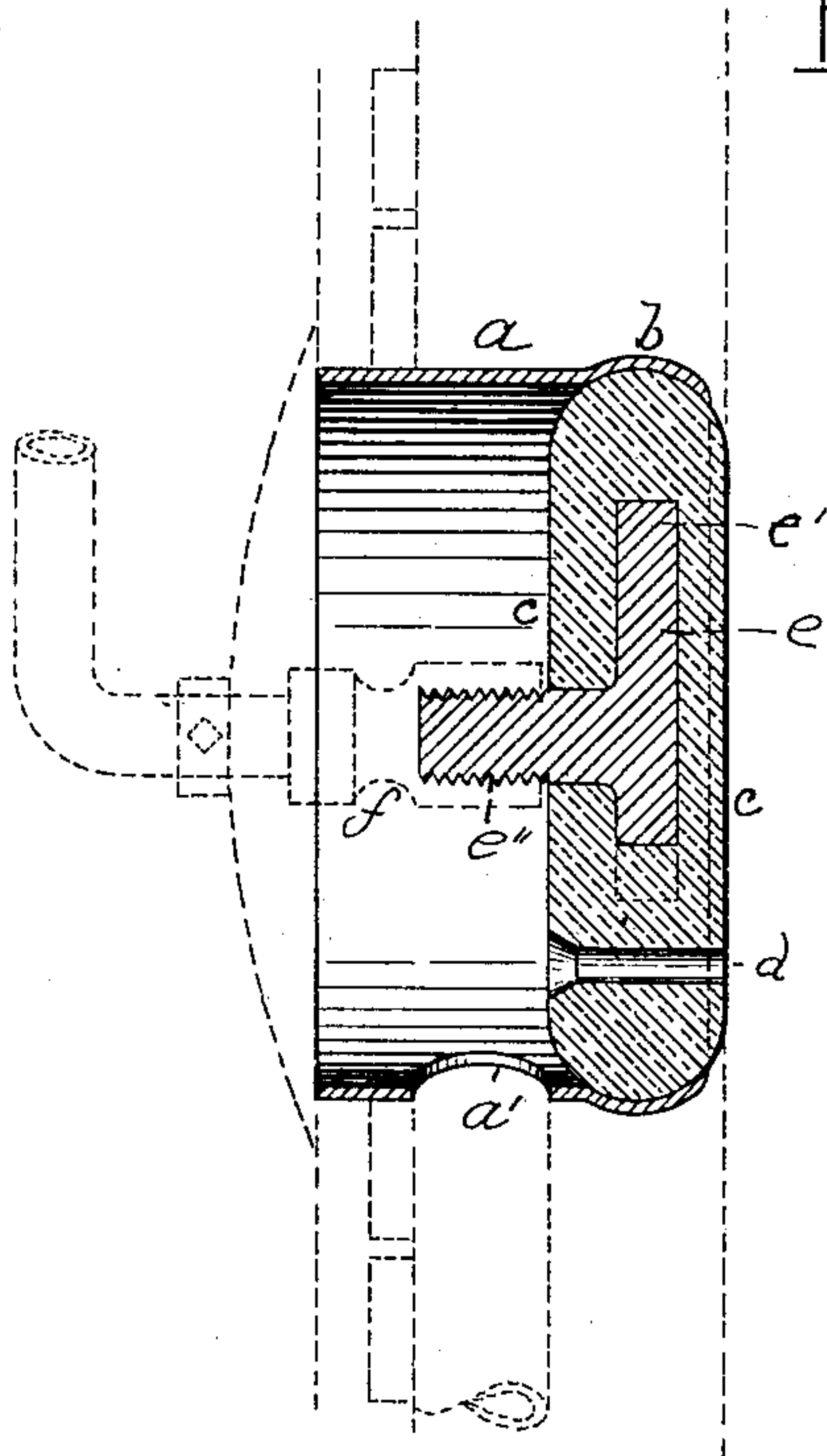


Fig. 3.

WITNESSES.

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JUNCTION-BOX FOR ELECTRIC WIRES IN BUILDINGS.

SPECIFICATION forming part of Letters Patent No. 754,111, dated March 8, 1904.

Application filed December 12, 1903. Serial No. 184,907. (No model.)

To all whom it may concern:

Be it known that I, BOYD W. ALLEN, a citizen of the United States, residing in Boston, in the county of Suffolk and State of Massachusetts, have invented a new and useful Improvement in Junction-Boxes for Electric Wires in Buildings, of which the following is a specification.

This invention relates to junction-boxes for introducing electric-light wires to brackets adapted to supply light from electricity or from both gas and electricity. These junction-boxes are set in the walls, and the electric-light wires extend through them to connect with the fixtures, said wires being properly insulated.

My present invention is in the same class as the invention patented to me July 8, 1902, said patent being numbered 704,424, to which reference is made; and it has for its principal objects to provide in the box more room available for attaching the bracket, to provide better insulation, to do away with the wall lettered A in the patent above referred to, to do away with any metallic part connecting with the fixture and projecting toward the building-wall in order to prevent any possibility of a metallic contact with a nail or other metal in the building-wall, to embed the nipple on the bracket in the insulation, and to generally simplify the construction of a junction-box of this character.

The nature of the invention is fully described below and illustrated in the accompanying drawings, in which—

Figure 1 is a front elevation or elevation looking from within the building of my improved junction-box. Fig. 2 is a rear elevation of the same. Fig. 3 is a cross vertical section taken on line 3, Fig. 1, the location and the shape of the nipple and the building-wall being indicated by dotted lines.

Similar letters of reference indicate corresponding parts.

The metallic portion of the box consists of a preferably annular wall, the main portion of which is lettered *a* and is provided with suitable holes *a'* for the electric wires or for pipes containing them. Integral with this main portion *a* is a rearward extension *b*,

which is curved or concavo-convex in section, as indicated in Fig. 3, said shape being for the purpose of holding and retaining in position an annular and practically flat slab *c*, of porcelain or other insulating material, the periphery of which is curved in cross-section to fit into the annular concavity in the portion *b* of the metallic part of the box. This insulation slab *c* constitutes the rear wall of the box and provides a rear surface of insulation, which is unbroken save by the screw-holes *d*.

Embedded in the insulation-wall *c* is the main portion *e* of the nipple, said main portion being preferably of the shape indicated by dotted lines in Fig. 1, in which it appears as a plate formed with three radial projections or arms *e'*, said arms extending between the holes *d*, serving to retain the nipple firmly in place in the wall of insulation *c*. The portion *e''* of the nipple extends horizontally forward through the insulation, being screw-threaded, as shown, to receive the fixture or bracket, which is indicated by dotted lines *f* in Fig. 3.

By embedding the main portion *e e'* of the nipple in the porcelain wall *c* instead of extending the nipple through the wall the box is enabled to present a solid rear wall of insulation, no metal part which is connected with the fixture extending through said wall and thereby possibly coming in contact with a nail or other metallic object. It will be seen that in this device the box provides ample working room for the attachment of the bracket or fixture and is exceedingly simple in construction, the wall lettered A in the patent above referred to being entirely done away with and the wall of insulation being held by the concavo-convex portion of the case.

Having thus fully described my invention, what I claim, and desire to secure by Letters Patent, is—

1. A junction-box of the character described, comprising a side wall; a rear wall of insulating material; and a nipple for attaching the bracket or fixture, the main or holding portion of said nipple being embedded in said rear wall without reaching the rear surface thereof, and the attaching portion of the nipple extending forward in position for connection with the bracket or fixture.

2. A junction-box of the character described, comprising a rear wall of insulating material; a nipple for attaching the bracket or fixture, said nipple being entirely embedded in the
5 rear wall with the exception of the portion which connects directly with the bracket or fixture, said portion extending through the insulation into engagement with the bracket or fixture; and a side wall embracing and hold-
10 ing in position by its shape the rear wall of insulating material.

3. In a junction-box of the character described, the rear wall *c* made of insulating material, and whose peripheral edge is curved in
15 cross-section; the metallic main portion or case *a* provided with the concavo-convex extension *b* holding said wall in engagement; and the nipple whose main portion *e* is embedded in and beneath the surface of said
20 wall, and whose forward portion *e'* is extended

through said wall for engagement with said bracket or fixture, for the purpose set forth.

4. In a junction-box of the character described, the rear wall *c* made of insulating material; the nipple comprising the main portion 25 *e*, radial extensions *e'*, and the forwardly-projecting portion *e''* adapted to engage the bracket or fixture, said portions *e* and *e'* being embedded in and below the surface of the rear wall; and the metallic side wall *a* in engage- 30 ment with and holding said rear wall, for the purpose set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

BOYD W. ALLEN.

Witnesses:

HENRY W. WILLIAMS,
A. K. HOOD.